REMARKS

Status of Application

The present Amendment is in response to the August 8, 2008 Advisory Action in which Applicants' July 31, 2008 Response to the May 12, 2008 Office Action (hereinafter, "Office Action") was not entered. Accordingly, the present Amendment includes a Request for Continued Examination and a response to the objections and rejections raised in the Office Action.

Claims 1-5, 7-45, 47-51, and 53-81 are pending in the application. Claims 1-5, 7-42, 47-51, 53-65, 73, and 76-80 are objected to because of informalities. Claims 1, 10, 11, 24, 26, 31, 38, 39, 43, 47, 50, 57, 58, 63, 65, 66, and 73 have been amended to correct these informalities. Claims 1-5, 7-42, 74-78, and 81 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Claims 1, 24, and 74 have been amended to overcome the rejection. Claims 66-73 are rejected under 35 U.S.C. § 102(b) as being anticipated. Claim 66 has been amended to overcome the rejection. Claims 43-45 are rejected under 35 U.S.C. § 103(a) as being obvious. Claim 43 has been amended to overcome the rejection. Support for these amendments can be found throughout the specification. Support for the amendments to claims 43 and 66 can be specifically found in page 15, first two full paragraphs, Fig. 1, and original claims 45, 55 and 56.

No new matter has been added with these amendments. After entering the amendments identified herein, claims 1-5, 7-45, 47-51, and 53-81 will be pending.

This Amendment is being filed concurrently with a Petition to Revive Unintentionally Abandoned Application under 37 C.F.R. § 1.137(b) and a Request for Continued Examination. Accordingly, Applicants respectfully request that prosecution be reopened, that the amendments identified herein be entered, and that the amended application be reconsidered in light of the following remarks.

Objections to Claims

Claims 1-5, 7-42, 47-51, 53-65, 73, and 76-80 are objected to because of informalities. Specifically, the Office Action states that in claims 1 "an conductive core" should be "a conductive core". Claims 10, 38, 47, and 58 contain improper means plus function language. Claims 24, 26, and 31 have typographical errors. Claims 50, 57, 65, and 73 have improper antecedent bases. Claim 63 contains an extraneous "a". Finally, claim 73 was "confusing". Each of these informalities was corrected. Specifically, claims 10, 11, 38, 39, 47, and 58 have been amended to use the phrase "means for", where the "means for" phrase is modified by functional language. Claim 73 has been amended to clarify that the "opposing surface" is a surface on the same tissue being analyzed but disposed across the tissue and on the opposite side of the tissue surface being analyzed. Support for this amendment can be found at page 36, lines 14-17, of the specification.

Applicants therefore respectfully request these objections be withdrawn.

Rejections Under § 101

Claims 1-5, 7-42, 74-78, and 81 are rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. The Examiner alleges that because the "surface of interest" is tissue and thus a part of the human body, non-statutory subject matter is claimed. Applicants respectfully disagree. Applicants submit that the above claims are directed to a probe device or a method, both of which are patentable subject matter under 35 U.S.C. § 101. Further, the surface of interest of a tissue is not the subject claimed by the above claims. Instead, a probe device and a method are claimed. The recited surface of interest is used to define the location in which the claimed probe device is placed relative to the surface of interest. Nevertheless, for the sole purpose of expediting prosecution of this application, Applicants have deleted the phrase "said portion of the wall being adjacent to a surface of interest" from each of claims 1, 24, and 74. Thereby, each of these independent claims and all of their dependent claims are now directed toward statutory subject matter.

In view of the foregoing, Applicants request that the Examiner withdraws the rejection under 35 U.S.C. § 101.

Rejections Under § 102

Claims 66-73 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kittrell et al. of U.S. Patent No. 5,106,387 ("Kittrell"). Applicants respectfully traverse the rejection.

Kittrell discloses a method of diagnosing the type of tissues in an artery using a laser catheter with one or more optical fibers. The distal end of the optical fiber is enclosed by a transparent protective optical shield and thus prevents blood from coming into contact with the internal component of the device and provides a clear view of target tissue (see, Kittrell, Abstract, column 4, lines 42-45, and column 5, lines 7-9 and 14-18). Kittrell stresses the need for a shield spacer layer that interposes between the distal end of the optical fiber and the target tissue, and highlights that "[i]n all cases the optical shield of the invention provides the means for controlled delivery of light to the tissue ..." (Kittrell, column 6, lines 8-10).

Claim 66 of the present application has been amended in response to the Examiner's rejection. Amended claim 66 teaches a method of diagnosing a tissue using a probe that is placed in direct contact, or optically coupled via an infrared transparent coupling fluid or gas with the surface of target tissue. Accordingly, in contrast to Kittrell, amended claim 66 avoids the use of the protective shield spacer layer. The claim amendments destroy the intended purpose for the use of the apparatus in Kittrell either by using a probe that optically couples with the tissue surface via an infrared transparent coupling fluid or gas and thus not requiring a solid protective shield, or by using a probe that comes into direct contact with the tissue surface and thus eliminating the use of a spacer layer all together. Applicants submit that Kittrell does not teach all of the elements of amended claim 66. Therefore, Applicants respectfully request that the rejection of claims 66-73 under 35 U.S.C. § 102(b) be withdrawn.

Rejections Under § 103

Claims 43-45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kittrell in view of Mersch of U.S. Patent No. 5,776,129 ("Mersch") and Kittrell in view of Fox et al. of U.S. Patent No. 5,395,361 ("Fox"). Specifically, in both cases the Examiner states that Kittrell discloses all of the elements except for showing that the fibers are on the outside of the balloon. The Examiner uses either Mersch or Fox to show the missing element. Applicants respectfully traverse the rejection.

Applicants have amended claim 43 to specify an endoscopic probe comprising a collection fiber whose "distal collection end is uncovered and exposed." Accordingly, in contrast to Kittrell, the claimed endoscopic probe does not include a optical shield enclosing the distal collection end of a collection fiber. As mentioned in the previous section, Kittrell emphasizes the importance of the optical shield for providing a spacer layer that interposes between the optic fiber and the target tissue, and thus serving both to protect the internal optical fiber of the device and to provide a clear field of view of the target tissue. Applicants' invention avoids the use of a spacer region by disposing the distal collection end of the probe on the outmost surface of the device and keeping the distal collection end uncovered and exposed. In doing so, the claimed invention places the distal collection end directly in contact with the target tissue and avoids the use of the optical spacer region. Applicants thus minimize optical loss and provide the advantage of unimpeded optical measurements (see page 14, first paragraph, and the paragraph bridging pages 15 and 16 of the specification).

Although Mersch and Fox are cited in the obviousness rejection, Applicants point out that Kittrell teaches away from direct contact and emphasizes the need for a spacer region in all cases. Thus, there is no teaching, suggestion, or motivation for one skilled in the art to combine Kittrell with the other two prior art references. Kittrell's optical shield and spacing is not present in, and indeed would not provide the advantages of, the claimed invention.

For at least the above reasons, amended claims 43 and claims depending therefrom are not obvious over any combination of the cited references. Applicants respectfully submit that the rejections of claims 43-45 under 35 U.S.C. § 103(a) be withdrawn.

Conclusion

In light of the above amendments and remarks, the Applicant respectfully requests that the Examiner withdraw the objections and rejections, and allow the claims to issue. The Examiner is invited to call the undersigned if a telephone call could help resolve any remaining items.

No fees are believed due with this paper. However, please charge any required fees, or credit any overpayments, to Jones Day Deposit Account No. 50-3013.

Respectfully submitted,

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